ELabELN

A Modern Electronic Lab Notebook and Lab Management System

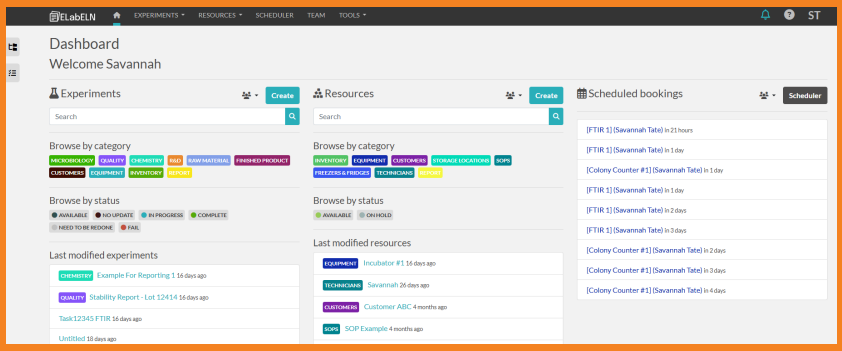
ELabELN is a powerful, modern electronic lab notebook (ELN) and general laboratory data management system built to meet the needs of today's scientific, research and analytical testing environments. Originally designed by researchers, for researchers, its flexibility makes it a great fit for almost any lab, delivering a secure, intuitive, and feature-rich platform that brings structure, compliance, and collaboration to laboratory data management.

ELabELN combines flexibility with robust functionality, making it ideal for academic institutions and research organizations, as well as analytical low/medium-throughput labs or startups. What makes the ELabELN unique is that it is built from a variety of popular components and systems such as ELabFTW, cloud and cyber-security components and modules to make it the most flexible and ideal solution for your laboratory.

KEY FEATURES

At the core of ELabELN are its comprehensive electronic lab notebook features. These are based around three main areas:

- **Experiments (tests, assays)**
- **Resources (people, instruments, inventory items, clients, etc.)**
- **Scheduler**



Experiments

Labs can document data using an electronic notebook entry to create any tests with fully documented protocols, status management, electronic signatures, custom metadata fields, and more.

To help standardize workflows and promote reproducibility, users can create detailed templates that can be reused for recurring procedures, significantly reducing time spent on repetitive documentation. These templates ensure consistency across team members and experiments, helping labs produce more reliable and repeatable results.

Resources

Inventory and Equipment Management and More!
Use the Resources feature to simplify the management of resources such as consumables, long-term assets, and more in your lab. Get creative to ensure that your resource categories match your own unique needs, with no limit to entries, from consumables to instruments, freezers, fridges, cabinets, etc. to staff and even suppliers, clients, subcontracted labs—anything you need to manage.

Scheduling Resources:
Users can schedule any resource on the calendar to streamline execution of workflows.

Templates

With our ELabELN, you get **access to a growing library** of experiment and resource templates, providing starting points for documentation of material testing, micro testing, inventory, equipment, customers, personnel, storage locations, SOPs, and more!

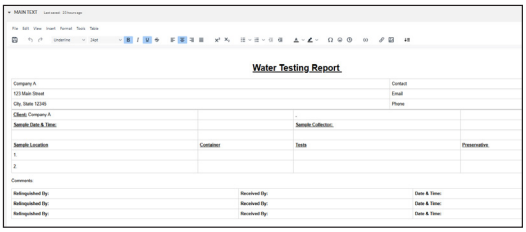
- **Every entry is time-stamped and version controlled:** Ensure data integrity and traceability. Preserve original data while enabling iterative updates.
- **Rich text editor:** Supports text formatting, embedded images, tables, code blocks, and even LaTeX for displaying equations.
- **Custom metadata fields:** Using a variety of fields types, track any data you need to.
- **Color-coded:** Easy recognition of page type based on category.
- **Tagging and categorization:** Easily organize and retrieve pages based on tags or category.
- **Search:** Powerful filter and search capabilities.
- **QR coded labels:** Instantly generate labels with QR Codes.

TEMPLATES

ELabELN templates for experiments and resources include various ways to track and manage data including:

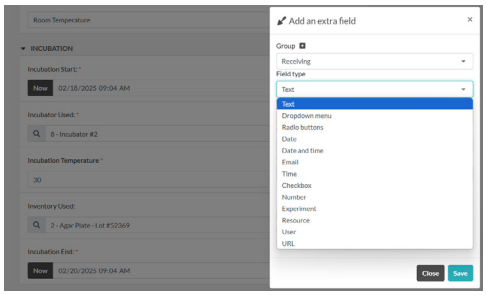
1. Main Text Editor

Create templates to track information, tables, protocols, mathematical notations, and more.



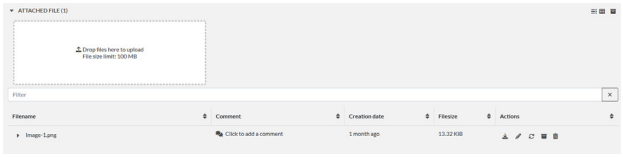
2. Metadata Fields

Track metadata in a variety of fields types such as text, dropdown menu, date, time, checkbox, numbers, URLs, etc.



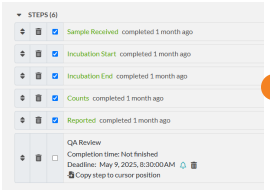
3. File Uploads

Upload, download, revise, and archive files to templates, experiments, and resources.



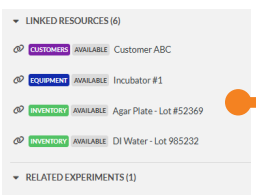
4. Steps and Deadlines

Create steps in a protocol, deadlines for tasks, or other workflows with notifications.


STEPS (6)
Sample Received completed 1 month ago
Incubation Start completed 1 month ago
Incubation End completed 1 month ago
Counts completed 1 month ago
Reported completed 1 month ago
QA Review

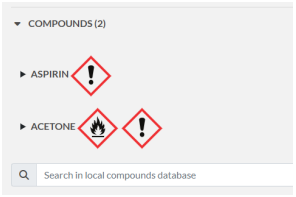
5. Related Experiments and Resources

Link resources or related experiments to your template, experiment, or resource.


LINKED RESOURCES (6)
CUSTOMERS AVAILABLE Customer ABC
EQUIPMENT AVAILABLE Incubator #1
INVENTORY AVAILABLE Agar Plate - Lot #52369
INVENTORY AVAILABLE DI Water - Lot 985232
RELATED EXPERIMENTS (1)

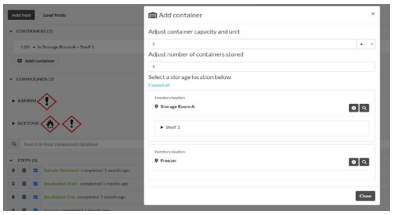
6. Compounds and Safety Symbols

Add chemicals manually or import from PubChem and associate to templates, experiments, or resources.



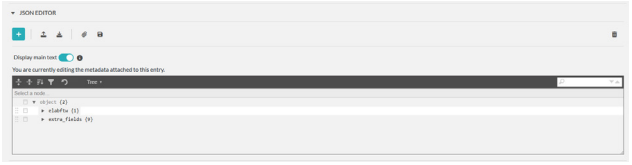
7. Containers

Track inventory/storage in containers within storage locations.



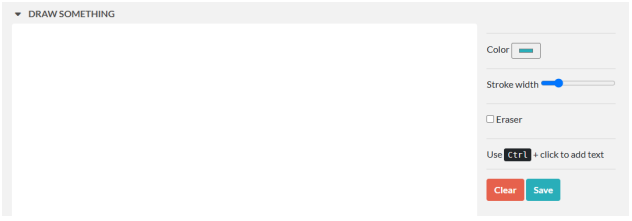
8. JSON Editor

The JSON editor can be used to edit the metadata for each entry.



9. Draw Tool

The draw tool can be used to free draw on each entry.



10. Comments

Comments can be left on each experiment or resource.

Security & Compliance

ELabELN is built with **data security and compliance** in mind. It meets GDPR requirements for data protection and offers features to support 21 CFR Part 11 compliance, such as electronic signatures and audit trails. All communications are encrypted using HTTPS, and user authentication can be configured with advanced options like LDAP and SSO, standard with LabLynx OpenSocial.

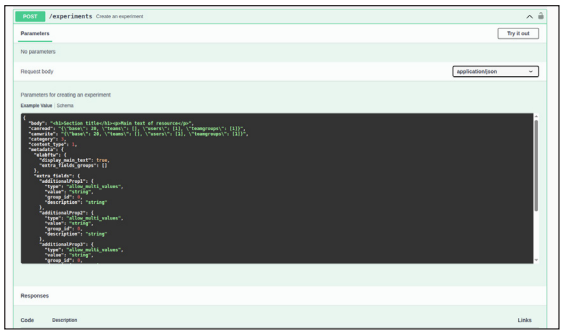
With the choice between local or cloud deployment, labs can **maintain full control over their data infrastructure** and access policies. And with LabLynx secure cloud hosting, you can rest assured that all data are fully backed up regularly and your IT infrastructure is fully secure and maintained. Additional information is available in our Hosting and Security Datasheet.

Collaboration & Access Control

Effective collaboration is essential in modern research, production, QA/QC or other laboratory operations. ELabELN is built to facilitate teamwork while maintaining precise control over data access. Admins can **assign user or admins roles with different permission levels,** ensuring that each team member and user group has appropriate access to experiments, resources and scheduling. Teams can share entries and collaborate on projects, with built-in tools like calendars and scheduling helping to coordinate lab activities.

Extensibility & Integration

ELabELN is designed for extensibility, offering a RESTful API that allows integration with other digital tools and platforms. Labs with specialized needs can use plugins or custom scripts to **tailor the system to their workflows.** Authentication is handled using our SAML based OpenSocial single sign on.



ELabELN API UI

Add-On Apps

Available From LabLynx to Complement Your ELabELN

You always have the option to upgrade to the LabLynx ELabELN Suite, which offers several other applications that can be combined with your ELabELN to meet even more of your lab's data management needs:

sciCloud.net®
Secure & Compliant application hosting platform
(Comes standard with ELabELN)

OpenSocial
Enterprise Single Sign-on (SSO)
& Identity Access Management (IAM)
(Comes standard with ELabELN)

LabDrive
Collaborative Scientific Data Management System (SDMS)
(Comes standard with ELabELN)

labvia
Laboratory Automation, Integration & Laboratory Execution System (LES)

labVista
Laboratory Reporting, Analytics & Data Visualization Dashboards (BI)

labServer
On premise deployment

LiMShelp
Services & Support Platform

Technical Specifications

ELabELN runs on a web-based platform and is compatible with all major operating systems through a modern web browser. It supports multilingual user interfaces. Whether deployed in a local LabServer or in LabLynx's SSO, secure, professionally maintained, backed-up managed cloud environment, ELabELN offers scalability, flexibility, and reliability.

Use Cases

ELabELN is suited for a wide range of R&D and analytical settings, including:

- ✔ **Academic Labs:** Manage student projects, publish reproducible research, and collaborate across departments.
- ✔ **Pharmaceutical and Biotech Companies:** Ensure compliance, protect IP, and streamline your lab's unique workflows.
- ✔ **Clinical Research Organizations:** Maintain regulatory documentation and protocols.
- ✔ **Materials and Environmental Science Labs:** Track complex experiments and manage diverse inventories.

Benefits

ELabELN provides numerous advantages for all laboratory environments:

- **Centralization** of lab data in a secure digital notebook
- **Enhanced collaboration** through shared access and live updates
- **Improved reproducibility** thanks to templated protocols and version tracking
- **Simplified compliance** with electronic signatures and audit trails
- **Reduced waste and overhead** via efficient inventory tracking and organization

Licensing & Support

ELabELN is accessible to any lab, no matter your budget. Affordable subscriptions are available and scalable, whether you need to keep everything in-house or opt for our secure AWS-based cloud hosting. And LabLynx provides professional support services directly, including training on functions and features, installation assistance, and custom development.

GET STARTED TODAY

Discover how ELabELN can transform your lab's data management. Whether you're looking to increase efficiency, ensure compliance, or foster collaboration, ELabELN offers the tools to modernize your lab, whether it's research, production, commercial testing or anything else.

Contact us at *sales@lablynx.com* to set up your trial version, and test-drive ELabELN today!

TECHNICAL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE.

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LabLynx, Inc. is a global provider of Laboratory Informatics Solutions for all types of laboratories. Our focus is on delivering lab data management solutions that fit your lab's technical, functional, business and scientific workflow requirements. For more information visit www.lablynx.com or email sales@lablynx.com or call 866-522-5969.

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